IN THE CLAIMS

1-21 (Canceled)

22. (currently amended) A process for preparing a metal powder or a metal hydride powder comprising mixing an oxide of at least one of Ti, Zr, Hf, V, Nb, Ta and Cr with a reducing agent and heating the resultant mixture in an oven, optionally under an atmosphere of hydrogen until a reduction reaction starts, ~~and~~ leaching the reaction product; and

washing and drying the resultant product to yield the metal powder or metal hydride powder, wherein the oxide has a mean particle size of 0.5 to 20 μm, a BET specific surface area of 0.5 to 20 m^2/g and a minimum content of 94 wt.%.

23. (previously presented)A process according to claim 22, wherein the mixture is heated to 800 to 1400°C in an oven.

24. (previously presented)A process according to claim 22, wherein the oxide has a mean particle size of 1 to 6 μm.

25. (previously presented)A process according to claim 22, wherein the oxide has a BET specific surface area of 1 to 12 m^2/g.

26. (previously presented)A process according to claim 25, wherein the oxide has a BET specific surface area of 1 to 8 m^2/g.

27. (previously presented)A process according to claim 22, wherein the oxide has a minimum content of 96 wt.%.

28. (previously presented)A process according to claim 27, wherein the oxide has a minimum content of 99 wt.%.

29. (previously presented)A process according to claim 22, wherein the proportion of Fe and Al impurities in the oxide are each < 0.2 wt.%, calculated as the oxides.

30. (previously presented)A process according to claim 29, wherein the proportion of Fe and Al impurities in the oxide are each < 0.1 wt.%, calculated as the oxides.

31. (previously presented)A proeess according to claim 22, wherein the proportion of Si impurities in the oxide is < 1.5 wt.%, calculated as SiO_2.

32. (previously presented)A process according to claim 31, wherein the proportion of Si impurities in the oxide is < 0.3 wt.%, calculated as SiO_2.

33. (previously presented)A process according to claim 22, wherein the proportion of Na impurities in the oxide is < 0.05 wt.%, calculated as Na_2O.

34. (previously presented)A process according to claim 22, wherein the proportion of P impurities in the oxide is < 0.2 wt.%, calculated as P_2O_5.

35. (previously presented)A process according to claim 22, wherein the loss on ignition of the oxide at 1000°C as constant weights is < 1 wt.%.

36. (previously presented)A process according to claim 22, wherein the tamped down bulk density according to EN ISO 787-11 (previously DIN 53194) of the oxide is 800 to 1600 kg/m^3.

37. (previously presented)A process according to claim 22, wherein a proportion of up to 15 wt.% of said oxide is replaced by an additive selected from the group consisting of MgO, CaO, Y_2O_3 and CeO_2.

38. (previously presented)A process according to claim 22, comprising reacting a reducing agent comprising an alkaline earth metal, alkali metal, or a hydride thereof with a compound to reduce the compound.

39 (previously presented)A process according to claim 38, wherein the reducing agent comprises at least one of Mg, Ca, CaH_2 or Ba.

40. (previously presented)A process according to claim 22, wherein the reducing agent has a minimum content of 99 wt.%.

41. (previously presented)A process according to claim 22, wherein the reaction is performed under a protective gas.

42. (previously presented)A process according to claim 22, wherein the reaction product is leached with hydrochloric acid.

43. (previously presented)A process according to claim 23, wherein the oxide used has a mean particle size of 1 to 6 μm.

44. (new) A process for preparing a metal powder or a metal hydride powder comprising mixing an oxide of at least one of Ti, Zr, Hf, V, and Cr with a reducing agent and heating the resultant mixture in an oven, optionally under an atmosphere of hydrogen until a reduction reaction starts, and leaching the reaction product; and

washing and drying the resultant product to yield the metal powder or metal hydride powder, wherein the oxide has a mean particle size of 0.5 to 20 μm, a BET specific surface area of 0.5 to 20 m^2/g and a minimum content of 94 wt.%.

45. (new) A process for preparing a metal powder or a metal hydride powder comprising sequentially mixing an oxide of at least one of Ti, Zr, Hf, V, Nb, Ta and Cr with a reducing agent and heating the resultant mixture in an oven, optionally under an atmosphere of hydrogen until a reduction reaction starts, leaching the reaction product; and

washing and drying the resultant product to yield the metal powder or metal hydride powder, wherein the oxide has a mean particle size of 0.5 to 20 μm, a BET specific surface area of 0.5 to 20 m^2/g and a minimum content of 94 wt.%.